

TENTATIVE DATA

EITEL-McCULLOUGH, INC.
SAN BRUNO, CALIFORNIA

2 C 3 9
HIGH-MU TRIODE

The Eimac 2C39 is a high-mu, forced-air cooled, external-anode transmitting triode incorporating features which make it useful at frequencies well into the U. H. F. range, as well as at lower frequencies. Its small size, rugged construction, unusually high transconductance, and relatively high plate dissipation permit the design of compact equipment of moderate power output for either fixed or mobile applications.

The grid of the Eimac 2C39 terminates in a ring interposed between the plate and cathode-heater terminals, and the heater and cathode are provided with a concentric, cylindrical stem structure, facilitating its use in "grid isolation" amplifiers with cavity-type tank circuits.

GENERAL CHARACTERISTICS

ELECTRICAL

Cathode: Coated Unipotential	
Heater Voltage - - - - -	6.3 volts
Heater Current - - - - -	1.1 amperes
Amplification Factor (Average) - - - - -	100
Direct Interelectrode Capacitances (Average)	
Grid-Plate - - - - -	1.95 μ fd.
Grid-Cathode - - - - -	6.50 μ fd.
Plate-Cathode - - - - -	0.030 μ fd.
Transconductance ($i_b=75$ ma., $E_b=600$ v.) (Average) -	17,000 μ mhos

MECHANICAL

Maximum Overall Dimensions:

Length - - - - -	2.75 inches
Diameter - - - - -	1.26 inches
Net Weight - - - - -	2.8 ounces
Shipping Weight (Average) - - - - -	7 ounces

RADIO FREQUENCY POWER AMPLIFIER

Class-C FM Telephony or Telegraphy (Key-down conditions, 1 tube)

MAXIMUM RATINGS (Frequencies below 500 Mc.)

D-C PLATE VOLTAGE - - - - -	1000 MAX. VOLTS
D-C CATHODE CURRENT - - - - -	100 MAX. MA.
D-C GRID VOLTAGE - - - - -	-150 MAX. VOLTS
PEAK POSITIVE R-F GRID VOLTAGE - - - - -	30 MAX. VOLTS
PEAK NEGATIVE R-F GRID VOLTAGE - - - - -	-400 MAX. VOLTS
PLATE DISSIPATION ¹ - - - - -	100 MAX. WATTS
GRID DISSIPATION - - - - -	3 MAX. WATTS

TYPICAL OPERATION (400 Mc.)

"Grid Isolation" Circuit

D-C Plate Voltage - - - - -	600 volts
D-C Plate Current - - - - -	60 ma.
D-C Grid Voltage - - - - -	-35 volts
D-C Grid Current - - - - -	40 ma.
Driving Power (approx.) - - - - -	5 watts
Useful Power Output - - - - -	20 watts

¹ Forced-air cooling required. 12 cubic feet of air per minute must be passed through plate cooler. Maximum plate dissipation without forced-air cooling=12 watts.



